

Claims

1. A fuel injection system for internal combustion engines, having a high-pressure reservoir (15), which is subjected to fuel at high pressure via a high-pressure feed unit (8) and supplies fuel injectors (19) with fuel, and the high-pressure feed unit (8) is assigned a pressure regulating valve (12) which is disposed between a high-pressure side (10, 56) and a low-pressure side (11, 53) and includes a valve element (54), which is triggerable via an electrical final control element (47), characterized in that the pressure regulating valve (12) includes a housing component (41), which includes a deformable region (57) by way of which upon mounting of the pressure regulating valve (12) on a receiving body (52) that carries high pressure, a gap L between faces (48, 49) of an electrically triggerable final control element assembly (45, 47) is adjustable.
2. The fuel injection system of claim 1, characterized in that the housing component (41) of the pressure regulating valve (12) that includes the deformable region (57) is embodied as a housing body.
3. The fuel injection system of claim 2, characterized in that the deformable region (57) on the housing component (41) is located in a region which in the mounted state of the pressure regulating valve (12) on a receiving body (52) is surrounded by the receiving body.
4. The fuel injection system of claim 2, characterized in that the housing component (41) includes a mounting element (51) that is movable relative to the outside of the housing component.

5. The fuel injection system of claim 1, characterized in that the deformable region (57) on the housing component (41) of the pressure regulating valve (12) is formed by a wall thickness reduction (59, 59.1).
6. The fuel injection system of claim 1, characterized in that the deformable region (57) on the housing component (41) of the pressure regulating valve (12) is formed by recesses (60) oriented perpendicular to the action line (58) of the mounting force.
7. The fuel injection system of claim 6, characterized in that the recesses (60) are embodied as through bores.
8. The fuel injection system of claim 6, characterized in that the recesses (60) are embodied as blind bores.
9. The fuel injection system of claim 4, characterized in that the mounting element (51) is secured in the axial direction on the outside of the housing component (41) of the pressure regulating valve (12) by a support ring (65).
10. The fuel injection system of claim 1, characterized in that an armature plate (46) acted upon by a spring element (44) is disposed on the connection end of the housing component (41) of the pressure regulating valve (12), and an air gap L is formed between the face end (48) of the armature plate and a face end (49) of the housing component (41) that surrounds an electromagnet (47).
11. The fuel injection system of claim 1, characterized in that the housing component (41) of the pressure regulating valve (12), on the end toward the valve, surrounds a seat ring (64) that has a valve seat (55) for the valve element (54).

12. The fuel injection system of claim 11, characterized in that the seat ring (64) includes a throttle restriction, which serves on the high side as an outlet throttle with respect to the system pressure inside a hollow chamber (46) of the receiving body (52) and which can be opened and closed by the valve element (54).

13. The fuel injection system of claim 11, characterized in that the deformable region (57) of the housing component (41) extends in the axial direction (61) between a sealing element (62) and the seat ring (64).

14. The fuel injection system of claim 1, characterized in that the deformable region (57) of the housing component (41) of the pressure regulating valve (12) is elastic and/or plastic, depending on the mounting force (58) brought to bear at the mounting element (51).